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EXAMINER

CHANG, EDITH M

ART UNIT

PAPER NUMBER

2637

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/066,046

Applicant(s)

TUNG ET AL.

Examiner

Edith M. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20050809
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Objections

1. Claims 1-13, 17-21 and 24-25 are objected to because of the following informalities:

Claims 1-4 & 10-12, line 1: "comprising" should be "comprising the steps of"

Claim 2, line 2: "sensing" should be "the sensing"; lines 3-4: "the act of" should be "the step of".

Claim 3, line 4: "the act of" should be "the step of".

Claim 4, line 2: "memory" should be "a memory"; line 3: "the act of" should be "the step of".

Claim 5, line 2: "memory" should be "the memory".

Claims 5-6, line 2; Claim 9, line 3: "comprising" should be "comprising the steps of".

Claim 7, line 1 & Claim 8, line 3: "comprising" should be "comprising the step of".

Claims 8 & 9, line 7: "memory" should be "the memory".

Claim 9, line 6: "said controllable parameter" should be "said at least one controllable parameter".

Claim 13, line 1: "the controllable parameter" should be "the at least one controllable parameter".

Claims 17 & 18, line 2: "memory" should be "a memory".

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Claim 19, line 2: "a previous connection" should be "the at least one previous connection";

line 5: "said memory" lacks antecedent basis.

Claim 20, line 2 & 5: "memory" should be "the memory".

Claim 21, line 4: "memory" should be "the memory".

Claims 24 & 25, line 3: "each set of values" should be "each set of the sets of values".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4-12, 17-18 and 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4, line 2: "a set of values of controllable parameters" does not clearly indicate that it is the "one of a number of sets" recited in lines 3-4 claim 1, or different;

lines 2-3 & 4: "said measurements" lacks antecedent basis;

lines 3-4: "said set" does not clearly indicate that the "said set" is the "each set" recited in line 4 claim 1 or the "a set" recited in line 2 of claim 4.

Claim 6, line 1: "said measurements" lacks antecedent basis.

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Claim 8, line 1: "a plurality of sets of values of controllable parameters" does not clearly indicate that it is the same as or different than "a number of sets of values of controllable parameters" recited in line 4 claim 4;

line 2: "said set" does not clearly indicate which "said set"? The "each set" recited in line 4 claim 1, "a set" recited in line 2 claim 4 or "a set" recited in line 6 claim 6;

line 6: "a second set" does not clearly indicate that what is the "a first set" that the "a second set" is a second set.

Claim 9, line 1: "a plurality of sets of values of controllable parameters" does not clearly indicate that it is the same as or different than "a number of sets of values of controllable parameters" recited in line 4 claim 4;

line 2: "said set" does not clearly indicate which "said set"? The "each set" recited in line 4 claim 1, "a set" recited in line 2 claim 4 or "a set" recited in line 6 claim 6;

Claims 10-12: "the user" lacks antecedent basis.

Claim 17, line 2: "a set of values of controllable parameters" does not clearly indicate that it is the same as or different than "a number of sets of values of controllable parameters" recited in line 4 claim 14;

line 4: "said set" does not clearly indicate that it is the "one of a number of sets" recited in line 4 claim 14 or the "a set" in line 2 of claim 17.

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Claim 18, line 5: "each set of measurements" does not clearly indicate that which measurements of the each set? The measurements recited in line 3 claim 14 or the current measurements recited in line 4 claim 18.

Claim 21, line 1: "a plurality of sets of values of controllable parameters" does not clearly indicate that it is the same as or different than "a number of sets of values of controllable parameters" recited in line 4 claim 14;

line 2: "said set" does not clearly indicate that it is the "one of a number of sets" recited in line 4 claim 14 or the "a set" in line 2 of claim 17.

lines 5-6: "the current measurements" lacks antecedent basis;

line 8: "said controllable parameter" lacks antecedent basis.

Claim 22, line 2: "the user" lacks antecedent basis.

Claims 5, 7, 20 and 21 are dependent on the rejected claims 4, 17 and 18.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-9, 13-21 and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Olafsson (US 6,785,371 B1).

Olafsson discloses a quick startup procedure for a modem system utilizes known characteristics of a previously established communication channel to reduce the initialization period associated with subsequent connections over the same channel (Abstract). The modem system with Modem A and Modem B is disclosed in FIG.3 and its method in FIG.4. The Modem A and Modem B can be configured such that both can function in either a transmit or receive mode (column 8, lines 15-17) and comprises processors with routines; memories; Rx with decoder; Tx with encoder; etc. (column 8, lines 27-41) to carry out various tasks associated with the operation of modem system 300.

Regarding to **claims 1 & 14**, The modem A (or B) comprises processor 312 (or 314, column 8, lines 42-58) as *means for sensing* and *means for selecting and setting*, to receive (*sensing*) ANSpcm 330 as *observable parameters* (Answer signal point sequence, column 9, line 23) in step 418 FIG.4; to select and set value of channel characteristics (as *controllable parameters*) by obtaining previous channel characteristics stored in 382 of FIG.3 by the task 420 of FIG.4 (column 15, lines 58-67).

Regarding to **claims 2 & 15**, Olafsson discloses the modem B (or A with processor; memory; Rx; Tx etc.) of FIG.3 as the *means for measuring* and the *means for adjusting*. The modem processor 312 (or 314) measures the performance (column 3, lines 9-11) wherein the shorten startup and reconnection time are the performance measurements to stable the connection; and periodically updates (*adjusting*) channel parameters (column 9, lines 54-56) until the channel characteristics are match (as the predetermined criteria, column 15, lines 53-57).

Regarding to **claims 3 & 16**, Olafsson discloses the modem B (or A with processor; memory; Rx; Tx etc.) of FIG.3 as the means for identifying and the means for using. The modem *identifying* a difference the channel attributes and a certain threshold (as the reference, column 15, lines 45-55) and *using* the difference (column 15, lines 58-67) to adjust the channel attributes as stated in steps 420 & 421 of FIG.4.

Regarding to **claims 4 & 17**, Olafsson discloses the modem processor 314 and memory 366 of FIG.3 storing the ANSpcm in 380 and channel attributes (or characteristics) in 382 in a relation of the previous established connection to the current channel (column 15, lines 58-60), wherein the stored parameters associated with session (column 9, lines 50-56).

Regarding to **claims 5 & 18**, Olafsson discloses the modem processor 314 and memory 366 of FIG.3 storing a new set of ANSpcm received (*sensed*) in 380 and channel attributes (or characteristics) in 382 of the current channel (as the association, column 15, lines 61-63), if the current measurements are not match (*outside*) the stored channel attributes (step 210 FIG.2), wherein the modem system revert to a V.90 startup procedure (step 212 FIG.2 & column 16, lines 1-11) and the quick start up procedure assumes (column 16, lines 11-20), so the observable parameters are *sensed* and new sets of parameters are stored in the memory.

Regarding to **claims 6 & 19**, Olafsson discloses the modem of FIG.3 *using* the channel attributes previously saved in the memory (steps 420 & 421 of FIG.4), if the current measurements are matched the stored channel attributes (the previous connection, column 15, lines 53-57);



Regarding to **claims 7 & 20**, Olafsson discloses the modem processor 314 and memory 366 of FIG.3 *updating* a new set of parameters in the memory (column 15, lines 64-67), if the current measurements are matched (*within the ranges*) the stored corresponding channel attributes.

Regarding to **claim 8**, Olafsson discloses the modem processor 314 and memory 366 of FIG.3 *updating* a new set of parameters in the memory (column 15, lines 64-67) wherein more than one set values (a first, a *second*) are updated in response to subsequent DIL procedure associated with the current connection, if the current measurements are matched (*within the ranges*) the stored corresponding channel attributes.

Regarding to **claims 9 & 21**, Olafsson discloses the modem creating an additional set for the channel attribute/characteristic in the memory (column 9, lines 56-61 & column 16, lines 32-39) and designating the additional set as the current set (task 420 FIG.4 & column 15, lines 39-44) when the current channel attribute is similar to a previously established channel (column 16, lines 11-14) and outside a predetermined ranges (column 16, lines 15-18).

Regarding to **claim 13**, Olafsson discloses the parameters of the equalizer coefficients (column 5, lines 19-23, column 9, lines 45-50).

Regarding to **claims 23-25**, Olafsson discloses the memory encode with measurements (column 9, lines 38-40) and ranges (column 9, lines 35-38) associated with the channel attributes (characteristics) in memories 320 & 366 FIG.3 (column 9, lines 45-54).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10-12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olafsson (US 6,785,371 B1) in view of Arai (US 2002/0150122 A1).

Regarding to **claims 10-12 & 22**, Olafsson does not explicitly specify by using user interface to control the modem. However, Arai teaches in Fig.3 the personal computer (PC) with the input equipment 234 for users to control the modem and the display 239 to notify users with the reports via input/output controlling section 235 and modem controlling section 231 (page 5, section [0083]). As Olafsson uses a personal computer of running host software 105 coupled to the modem 104 (FIG.1 '371, column 4, lines 56-63), at the time of the invention was made, it would have been obvious to one of ordinary skill in the art to have the PC 230 with display and input equipment for user taught by Arai in Olafsson's PC to provide users means to start measurement processing for the purpose of deciding feasibility of the communication service using the modem (page 5 section [0084] lines 15-19).


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay K. Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
September 26, 2005

  
YOUNG T. TSE  
PRIMARY EXAMINER